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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,252	08/03/2001	Jen-Shou Tseng	9585-0047	7618
73552	7590	01/29/2008		
Stolowitz Ford Cowger LLP 621 SW Morrison St Suite 600 Portland, OR 97205			EXAMINER VILLECCO, JOHN M	
			ART UNIT 2622	PAPER NUMBER
			MAIL DATE 01/29/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/922,252

Applicant(s)

TSENG ET AL.

Examiner

John M. Villecco

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7,8,11-23 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11,12,16,17,26 and 28 is/are allowed.
- 6) ☒ Claim(s) 4,5,7,8,12-15 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 4, 5, 7, 8, 11-23, and 26-28 have been considered but are moot in view of the new ground(s) of rejection.
2. Additionally, applicant's amendment also introduces new matter. Thus, a new rejection under 112, 1st has also been presented.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 15, 21, 23, and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the above reference claims introduce new matter which was not originally disclosed in the filed application. See MPEP § 2163.06 and 2163.07.
5. Regarding claim 15, applicant claims that the "vibration sensor is configured to detect vibration of the light sensing device in the X, Y, and Z directions and the pivoting of the optical component compensates for the detected vibration in the X, Y, and Z directions". While applicant does disclose that the vibration can occur in the X, Y, and Z directions (paragraph

0016), applicant fails to disclose that the vibration sensor detects vibration in the X, Y, and Z directions, nor does applicant disclose that the optical component compensates for the vibration in each of the X, Y, and Z directions. Applicant merely claims that the vibration can occur in the X, Y, and Z directions.

Claim 15 is also rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Even if applicant successfully argues that it is disclosed in the specification, the Examiner is of the opinion that one would not be enabled to make and/or use the invention. More specifically, the only discussion applicant provides for correcting for the vibration, is for the correction of vibration in only one direction (Y). The Examiner is of the opinion that it is infinitely harder to optically correct an image for vibration in each of the X, Y, and Z directions at the same time as claimed, than it would be to correct for vibration in only one direction. As per *In re Wands*, (see section 2164.01 of the MPEP), based on the *In re Wands* factors, the examiner is of the opinion that one of ordinary skill in the art would be forced to undertake undue experimentation in order to make and/or use the invention. Of particular note are factors (C) State of the prior art, (D) The level of one of ordinary skill, (F) The amount of direction provided by the inventor and (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. When considering each of these factors, the examiner is of the opinion that one of ordinary skill would not be enabled to make and/or use the invention.

6. With regard to **claim 21**, applicant claims that the “optical assembly is configured to be adjusted to compensate for vibration of the light sensing device in any direction”. While applicant does disclose that the vibration can occur in the X, Y, and Z direction (paragraph 0016), the applicant never discloses that the optical assembly is configured to be adjusted to compensate for vibration of the light sensing device in any direction. Thus, this newly added claim language constitutes new matter.

Claim 21 is also rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Even if applicant successfully argues that the optical assembly is adjusted to compensate for vibration in any direction is disclosed in the specification, the Examiner is of the opinion that one would not be enabled to make and/or use the invention. More specifically, the only discussion applicant provides for correcting for the vibration, is for the correction of vibration in only one direction (Y). The Examiner is of the opinion that it is infinitely harder to optically correct an image for vibration in each of the X, Y, and Z directions at the same time as claimed, than it would be to correct for vibration in only one direction. As per *In re Wands*, (see section 2164.01 of the MPEP), based on the *In re Wands* factors, the examiner is of the opinion that one of ordinary skill in the art would be forced to undertake undue experimentation in order to make and/or use the invention. Of particular note are factors (C) State of the prior art, (D) The level of one of ordinary skill, (F) The amount of direction provided by the inventor and (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

When considering each of these factors, the examiner is of the opinion that one of ordinary skill would not be enabled to make and/or use the invention.

7. As for claim 23, applicant claims that the "means for detecting movement further comprises means for detecting movement in any direction". While applicant does disclose that the vibration can occur in the X, Y, and Z direction (paragraph 0016), the applicant never discloses that the vibration sensor can detect movement in any direction. Thus, this newly added claim language constitutes new matter.

8. With regard to claim 27, applicant claims that the "one or more components include the document platform". Applicant discloses on 7 of the response that at least Figures 2 and 3 provide support for the newly added claim limitation. However, claim 1, from which claim 27 depends, claims that the driving mechanism moves the one or more components to control which portion of the document reflects the light. However, this limitation was never mentioned in the originally filed disclosure. Applicant does disclose that the platform is moved to correct the vibration (in which case, this belongs to a non-elected species), but never discloses that the platform is moved to control the portion of the document that reflects the light. The only mentioning of control which portion of the document reflects the light occurs in paragraph 0003. This paragraph merely discloses that the mirrors and image sensor are moved to scan a specific portion of the document. Thus, since moving the platform to control the portion of the image that reflects the light is never disclosed with respect the elected species, this limitation constitutes new matter.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 4, 5, 7, 8, 12-14, and 18-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paltz et al. (European Publ. No. 0003243 A1) in view of Misawa et al. (U.S. Patent No. 5,041,852) and further in view of Ariga et al. (U.S. Patent No. 5,933,191).**

11. Regarding ***claim 4***, Paltz discloses a photographic unit for capturing an image of a document or for capturing a personal image and a support thereof. More specifically, Paltz discloses a document platform (11) from which light is reflected up to the camera (4) for capturing a representation of the document.

Paltz, however, fails to explicitly disclose measuring a vibration, converting the measured vibration to an actuator signal, and adjusting a light path that intersects the light sensing device by repositioning an optical component according to the actuator signal, the adjustment of the light path maintaining a position of the provided light on the light sensing device. Misawa, on the other hand, discloses a camera with just such an arrangement. More specifically, Misawa discloses using a vibration sensor (shake detector sensor, 90) to measure the vibration of the camera, using an operation circuit (94) to convert the detected vibration into an actuator signal for moving the mirror (12) (see column 13, lines 27-35), and adjusting the light path by

repositioning the optical component (mirror, 12) to maintain the position of the light on the light sensing device.

The combination of Paltz and Misawa, however, fails to provide adequate motivation as to why one would modify the document image pickup of Paltz to make its camera a vibration proof camera, as in Misawa. Ariga, on the other hand, discloses that it is well known in the document pickup camera art, that vibrations can be a major cause of image distortion. More specifically, Ariga discloses that external vibrations in a document pickup camera makes a captured image difficult to observe. See column 2, lines 44-54. Therefore, given this teaching in Ariga, one of ordinary skill in the art at the time the invention was made would have found it obvious to modify the document image pickup camera of Paltz with the vibration correcting camera of Misawa so that the external vibrations causing a distorted image in the document camera of Paltz can be corrected.

12. As for **claim 5**, Misawa discloses that the mirror is pivoted according to the actuator signal. In particular, Misawa discloses that the incline of the mirror (12) is adjusted according to the actuator signal from the operation circuit (94). See column 13, lines 35-45. It is inherent that if one changes the inclination of the mirror that it has to be pivoted about some point.

13. With regard to **claim 18**, Misawa discloses that the vibration correction device operates to reduce the vibration to zero (col. 13, line 34). Thus, the impinging light would always be at constant fixed location on the image sensor.

14. Regarding **claim 19**, Misawa discloses that light path is adjusted to correct for the measured vibration independently of whether the light sensing device is adjustable. Since the

light sensing device of Misawa is not adjustable, the light path is corrected according to the measuring vibration independently.

15. As for **claim 20**, Misawa discloses that the vibration sensor measures vibration in the x-direction. See column 13, line 30.

16. With regard to **claim 7**, Paltz discloses a photographic unit for capturing an image of a document or for capturing a personal image and a support thereof. More specifically, Paltz discloses means for supporting a document (document platform, 11) and means for reflecting light (mirror 7) from at least a portion of the document.

Paltz, however, fails to explicitly disclose means for sensing vibration, means for converting the measured vibration to an actuator signal, and means for adjusting an optical assembly according to the actuator signal. Misawa, on the other hand, discloses a camera with just such an arrangement. More specifically, Misawa discloses using a vibration sensor (shake detector sensor, 90) to measure the vibration of the camera, using an operation circuit (94) to convert the detected vibration into an actuator signal for moving the mirror (12) (see column 13, lines 27-35), and adjusting the light path by repositioning the optical component (mirror, 12) to maintain the position of the light on the light sensing device.

The combination of Paltz and Misawa, however, fails to provide adequate motivation as to why one would modify the document image pickup of Paltz to make its camera a vibration proof camera, as in Misawa. Ariga, on the other hand, discloses that it is well known in the document pickup camera art, that vibrations can be a major cause of image distortion. More specifically, Ariga discloses that external vibrations in a document pickup camera makes a captured image difficult to observe. See column 2, lines 44-54. Therefore, given this teaching in

Ariga, one of ordinary skill in the art at the time the invention was made would have found it obvious to modify the document image pickup camera of Paltz with the vibration correcting camera of Misawa so that the external vibrations causing a distorted image in the document camera of Paltz can be corrected.

17. Regarding *claim 8*, Misawa discloses that a mirror (12) is adjusted in response to the actuator signal. See column 13, lines 28-45.

18. As for *claim 22*, Misawa discloses that the means for detecting vibration is a means for detecting movement (shake) of the camera. See column 13, lines 20-45.

19. With regard to *claim 12*, Paltz discloses a photographic unit for capturing an image of a document or for capturing a personal image and a support thereof. More specifically, Paltz discloses a document platform (11) and a light sensing device (camera, 4).

Paltz, however, fails to explicitly disclose a vibration sensor for sensing vibration and for converting the measured vibration to an actuator signal, and an optical assembly to correct for the detected vibration corresponding to the actuator signal. Misawa, on the other hand, discloses a camera with just such an arrangement. More specifically, Misawa discloses using a vibration sensor (shake detector sensor, 90) to measure the vibration of the camera, using an operation circuit (94) to convert the detected vibration into an actuator signal for moving the mirror (12) (see column 13, lines 27-35), and adjusting the light path by repositioning the optical component (mirror, 12) to maintain the position of the light on the light sensing device.

The combination of Paltz and Misawa, however, fails to provide adequate motivation as to why one would modify the document image pickup of Paltz to make its camera a vibration proof camera, as in Misawa. Ariga, on the other hand, discloses that it is well known in the

document pickup camera art, that vibrations can be a major cause of image distortion. More specifically, Ariga discloses that external vibrations in a document pickup camera makes a captured image difficult to observe. See column 2, lines 44-54. Therefore, given this teaching in Ariga, one of ordinary skill in the art at the time the invention was made would have found it obvious to modify the document image pickup camera of Paltz with the vibration correcting camera of Misawa so that the external vibrations causing a distorted image in the document camera of Paltz can be corrected.

20. Regarding *claim 13*, Misawa discloses the use of a mirror (12).

21. As for *claim 14*, Ariga discloses that document scanning cameras commonly use CCD's. See column 1, line 10.

Allowable Subject Matter

22. Claims 1, 2, 11, 12, 16, 26, and 28 are allowed.

23. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the primary reason for allowance is that the prior art fails to teach or reasonably suggest an optical scanner comprising a document platform, a driving mechanism with one or more components to control which portion of the document reflects the light, a light sensing device, an optical component, a vibration sensor positioned to detect vibration associated with the light sensing device, a controller to produce an actuator signal corresponding to the sensed vibration, and an actuator to pivot the optical component.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (571) 272-7319. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John M. Villecco
Primary Examiner, Art Unit 2622
January 23, 2008